

at the external border. A smooth, wedge-shaped area radiates towards the columellar margin, and the areas above and below this are lamellose, the lamellæ at right angles to the sides of the median wedge. This is quite unlike all known genera of the region.

CERATODISCUS RAMSDENI n. sp.

The shell is minute, planorboid, the spire slightly sunken, umbilicus open, conic, showing all the whorls. Whorls  $2\frac{2}{3}$ , tubular, the last whorl descending slightly and becoming free from the preceding a short distance behind the aperture. Initial half whorl smooth; following whorl having several raised spiral threads; subsequent whorls with sculpture of fine, somewhat irregular growth-lines only. The aperture is slightly oblique, not quite circular, the inner border being a little straightened. The peristome expands just perceptibly, and is not or scarcely thickened.

Alt. 1.3, diam. 3 mm.

Guantánamo, Cuba, on the San Carlos Estate, numerous specimens.

This species is far smaller than *C. minimus*, and differs by the restriction of spiral sculpture to the first neanic whorl, and by the free end of the last whorl. In *C. minimus* the spiral sculpture continues upon the last whorl. Although the specimens of *C. ramsdeni* were dirty when collected, I doubt whether they are so in life. *C. minimus* carries a peculiar, bicarinate coat of dirt, firmly cemented on with mucus, and which almost or quite conceals the shell.

*C. solutus* H. & S., of Haiti, is a larger shell, more depressed, with the last whorl free for a greater distance.

The new species will be illustrated next month, together with various other new Cuban shells.

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NOTES.

BY JAS. H. FERRISS.

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A set of *Oreohelix iowensis* Pils. from Prof. B. Shimek of Iowa City, with gentle washing and a slight touch of oil exhibited their pink bands, though resurrected from their tombs in the Loess where they slept some thousands of years. The syringing also brought out five juveniles from one specimen, and some of those were also banded.

While telling "snake stories" I will tell them all. In our collections of 1910 in the Santa Rita Mountains, Arizona (Pilsbry, Daniels and Ferriss), we found a thin and small *Sonorella* belonging apparently to a new group, near *S. rowelli* (Newc.). Again we found a member of the same group in the Santa Catalinas, and last year I extended it into the Grahams and Peloncillos. The habitat and habits of *Sonorella* are usually dry, but these were wet, with a fondness for deep woods and old logs. It was found easily in the dark gulches of the Catalinas last summer, and in its vicinity a bitter odor was noticed, something like that given out by Parnassus grass, skunk cabbage, and a Tennessee goldenrod. It came from the snail. As I picked it from its resting place it shot out a drop or two of juice into the air, but that was the extent of the disturbance. The odor soon disappeared and was not repeated. Of the hundreds found of this odorous group I saw only three shells broken by the chipmunks, and very seldom a dead one. Last summer I gathered over 300 *Sonorellas* of the *rinconensis* group in one slide of rock, and found only two alive. Often mice and chipmunks defeated me entirely in slides containing both *Oreohelix* and *Sonorella*.

Robert Camp, a student and collector of birds, now at Brownsville, Texas, has found more delight in snail collecting than in truck gardening, and is now sending out some of the finest Texans produced. That region is peculiarly adapted for good colors and good health in snails. His *Euglandina texasiana* Pfr. (not *singleyana* W. G. B.) are perfect as perfect can be, for I was down there in January and helped him catch 'em.

He sent me in Arizona last summer some *Planorbis cultratus* Orb. and *Segmentina obstructa* (Morel) he had found in the dry Texas soil from four to six inches deep. Turned loose in a cup of Arizona water they were soon crawling about. In January we collected in a cotton field that had been cultivated four years, and on the edge of the field in the shade and unbroken ground found the shell alive four inches down in stiff black soil, cracked so long that the cracks were lined with moss. The live shells however were not in the cracks but in the sections of black and baked soil. In a low spot of the field, a springy place, we found them also with a *Succinea*, *Physa* and *Planorbis liebmanni*, Dkr., but none were alive. The latter resembles the *Segmentina* except in wanting teeth. It is also larger. The *P. cultratus* is thin as a sheet of ledger paper and very delicate in appearance.

On this Texas journey we went up the Rio Grande as far as Rio Grande City. In Louisiana I visited Mr. L. S. Frierson and saw his collection of Uniones with great profit. I heard the story of Dr. W. S. Strode of my own State, barefooted, attempting to kick down a cypress knee in Lake St. Charles. These knees in color sometimes do look like a toadstool of tropical growth.

I also learned that Mr. Frierson was well supplied with *Anodonta suborbiculata* Say. He found a fragment of that rare queen of the Anodontas at the edge of a pond near his village and employed a gentleman of color to gather them at a nickel per clam. Two days later the black imp of darkness drove up to his house with a two-horse team, the wagon box full of *A. suborbiculata*.

I did not find Rev. H. E. Wheeler at Arkadelphia, Ark. These Methodist conchologists move too often.

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#### CUBAN COLLECTING; SAN DIEGO DE LOS BANOS.

BY JOHN B. HENDERSON.

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Mr. Charles T. Simpson and the writer recently made a collecting trip to San Diego de los Banos. This old and very dilapidated Cuban town is about seventy five miles west of Havana and lies just at the entrance to a pass through the southern range of the Sierra de los Organos and is an admirable starting point for daily collecting excursions into the mountains. This is given as the type locality of a number of species and judging from its frequent reference in Cuban lists it must have been a favorite field for the older collectors who first made known Cuba's remarkable land snail fauna. The actual town itself lies in the lowlands and therefore offers nothing to the collector for Cuba's level plains and valleys are almost destitute of shells. On account of this fact Cuba still maintains three quite distinct land shell faunas, each inhabiting its own mountain system. These three systems were once separated by the sea and developed their own island faunas, but now that a general elevation of the whole region has connected them all by dry land a mingling of the three faunas might naturally be expected. Such, however, is the case only to a very slight extent. The connecting land areas are lowlands,—the tobacco fields, the cane fields and cattle ranges of the island. With a very few exceptions the Cuban land shells can-